

Chapter 0 – HORIZONTH

Primordial Difference Hypothesis v1.0 EN

Difference Formation Theory

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Abstract

This chapter introduces the HORIZONTH framework and the Primordial Difference Hypothesis as the foundational reference point of the Differentics Difference Logic System. It does not attempt to explain the ultimate origin of reality, existence, or the universe. Instead, it establishes the minimal logical horizon beyond which Differentics does not claim formal explanatory power.

The Primordial Difference Hypothesis serves as a methodological and conceptual starting point from which the analysis of difference, identification, relation, structure, dynamics, information, and emergence becomes possible.

This chapter therefore functions as the logical preface to all subsequent Differentics developments.

0.1 Introduction

Every formal system requires a starting point.

Mathematics begins with axioms.

Geometry begins with primitive objects.

Logic begins with primitive propositions.

Likewise, Differentics requires a minimal reference point from which the study of difference becomes meaningful.

The purpose of this chapter is not to prove the existence of a primordial difference.

The purpose is to establish the logical horizon from which the Differentics framework begins its analysis.

This horizon is called:

[
\\boxed{HORIZONTH}
]

0.2 The HORIZONTH Principle

The HORIZONTH Principle states:

Differentics does not attempt to derive what lies beyond the Primordial Difference Horizon.

Any reality, state, process, condition, or phenomenon that may exist prior to the emergence of distinguishability lies outside the formal scope of Differentics.

Consequently, Differentics does not claim to explain:

- the ultimate origin of existence;
- the ultimate origin of reality;
- the ultimate origin of logic;
- the ultimate origin of difference itself.

These questions remain beyond the operational boundary of the discipline.

The role of Differentics begins at the point where difference becomes logically expressible.

0.3 NODIFFERENTH

The first conceptual state is defined as:

[
\\boxed{NODIFFERENTH}
]

NODIFFERENTH represents a hypothetical condition in which no identifiable difference exists.

Within this condition there is no:

- distinction;
- identification;
- relation;
- comparison;
- information;
- structure.

No entity can be distinguished from any other entity.

No state can be distinguished from any other state.

No observer can distinguish itself from its environment.

NODIFFERENTH is not asserted as a physical reality.

It is a conceptual limit condition.

0.4 NONIDENTH

The next logical condition is:

[
\\boxed{NONIDENTH}
]

NONIDENTH represents the failure of complete self-identity.

Symbolically:

$$\left[\neg(A=A) \right]$$

This does not imply the existence of two separate entities.

Instead, it indicates the emergence of internal logical instability.

A condition that is not perfectly self-identical contains the potential for differentiation.

NONIDENTH therefore represents the first logical possibility of distinction.

0.5 SELFDIFFERENTH

From NONIDENTH emerges:

$$\left[\boxed{\text{SELFDIFFERENTH}} \right]$$

SELFDIFFERENTH is the appearance of internal difference.

The system becomes capable of expressing:

$$\left[A \neq (nA) \right]$$

The emergence of a distinction does not yet imply complete identification.

It merely establishes the existence of contrast.

Difference appears before identity.

Distinction appears before classification.

Differentiation appears before structure.

0.6 SELFIDENTH

The next stage is:

[
 $\boxed{\text{SELFIDENTH}}$
]

SELFIDENTH emerges when:

[
A
]

becomes capable of recognizing:

[
(neA)
]

The existence of an identifiable contrast allows the emergence of identity.

Identity is therefore not treated as a primitive property.

Identity emerges through difference.

This principle may be expressed as:

[
 $\boxed{\text{SELFIDENTH}}$
]

A \text{ recognizing } (neA)
}
]

or equivalently:

[
 $\boxed{\text{Without Difference, there is no Identification.}}$
]

0.7 The Primordial Difference Hypothesis

The Primordial Difference Hypothesis proposes the following logical sequence:

```
[  
NODIFFERENTH  
\rightarrow  
NONIDENTH  
\rightarrow  
SELFDIFFERENTH  
\rightarrow  
SELFIDENTH  
]
```

This sequence should not be interpreted as:

- a cosmological model;
- a physical theory;
- a historical event;
- an empirical description of the universe.

Instead, it represents the minimal logical pathway through which distinguishability becomes possible.

The hypothesis serves exclusively as a conceptual reference framework.

0.8 Difference as the Origin of Identification

Within Differentics, difference is considered logically prior to identification.

The following principle is adopted:

```
[  
\boxed{  
Difference \rightarrow Identification  
}  
]
```

and not:

[
Identification $\rightarrow$ Difference
]

An entity can only be identified if it can be distinguished.

Consequently:

[
\boxed{
Difference is the necessary condition of identification.
}
]

0.9 Difference as the Reference Origin

The Primordial Difference Hypothesis functions as the reference origin of the Differentics Difference Logic System.

It establishes the minimal conceptual foundation upon which all subsequent developments are built:

- Difference Logic;
- Difference Information Theory;
- Difference Algebra;
- Difference Metrics;
- Difference Geometry;
- Difference Topology;
- Difference Dynamics;
- Difference Networks;
- Difference Fields.

The hypothesis therefore serves the same methodological role that axiomatic foundations serve in mathematics.

0.10 Scope and Limitations

Differentics explicitly acknowledges that questions concerning the ultimate origin of difference may remain undecidable from within the system itself.

Therefore:

[
\boxed{
The Primordial Difference Hypothesis is not claimed as an absolute truth.
}
]

It is adopted as a foundational reference assumption.

Its purpose is to provide a coherent starting point for the formal study of difference.

Conclusion

The HORIZONTH framework establishes the conceptual boundary of Differentics and defines the Primordial Difference Hypothesis as the discipline's logical point of departure.

By introducing the sequence:

[
NODIFFERENTH
\rightarrow
NONIDENTH
\rightarrow
SELFDIFFERENTH
\rightarrow
SELFIDENTH
]

Differentics identifies the minimal conditions necessary for the emergence of distinction and identification.

This framework does not attempt to explain what exists beyond the Primordial Difference Horizon.

Instead, it establishes the point from which the formal analysis of difference begins.

The chapters that follow develop the mathematical, logical, informational, structural, and dynamic consequences of this foundational assumption.